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EXAMINER

COLLINS, GIOVANNA M

ART UNIT PAPER NUMBER

3679

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/070,019

Applicant(s)

SCHIEMANN ET AL.

Examiner

Giovanna M. Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-19 is/are rejected.
- 7) ☒ Claim(s) 4 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7. 6) ☐ Other: .

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the axial guide means between the actuating slider (17) and the sleeve part (12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: The arrows in claim 1 need to be removed. Appropriate correction is required.

3. Claim 9 is objected to because of the following informalities: In line 3, the word "radially" is recited twice. In line 5, the phrase "rib (17)" should be changed to - - rib (37) - -. Appropriate correction is required.

4. Claims 15-17 are objected to because claims 15 and 16 recite the limitation "the cup shaped détente recess" in line 4. There is insufficient antecedent basis for this limitation in the claim, as this limitation has not been previously recited in claims 15 and 16 or in claim 1 from which claims 15 and 16 depend.

Claim 17 depends from claim 16 and likewise is objected to.

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Claim 18 is objected to because claim 18 recites the limitation "the inclined slide guide surfaces" in lines 3- 4. There is insufficient antecedent basis for this limitation in the claim, as this limitation has not been previously recited in claims 18 or in claim 1 from which claim 18 depends.

Claim 20 is objected to because claim 20 recites the limitation "the end of the sleeve part" in line 4. There is insufficient antecedent basis for this limitation in the claim, as this limitation has not been previously recited in claims 20 or in claim 1 from which claim 20 depends.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

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international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-3,5-6 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Downey et al. ('363).

Downey discloses (see Figs. 3,5 and 6) plug-connectable vacuum cleaner pipe arrangement with a sleeve part (35) which forms a socket into which a pipe insertion end (20) can be axially inserted in an insertion direction and which can be held in a snap-locked condition releasably via locking means (44,26) which on the side of the sleeve part is comprised of a locking body (44) movable on the latter and on the side of the pipe insertion end is formed by a detent recess (26) provided in the latter and in which the detent body releasably engages, characterized in that, on the sleeve part an actuating slider (48) is axially guided which has a locking surface and is displaceable in two axially opposite axial directions (See figs. 5 and 6) starting from a neutral axial position of its locking surface against respective spring-restoring forces, in that the locking surface hold the locking body in its locked position in the neutral axial position of the locking surface and by each shift out of the neutral axial position into an unlocking position is displaced into an unlocking position, in that the end of the tube insertion end has a first control surface which upon insertion arrow of the tube insertion end into the socket moves the locking body together the sleeve part relative to the locking surface in the pipe insertion direction, thereby unlocking the locking body and freeing it for its releasable snap locking into the detent recess which is juxtaposed with a second control surface which, upon

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withdrawal of the tube insertion end from the socket moves the locking body together with the sleeve part relative to the locking surface in the withdrawal direction and thereby disengages.

Referring to claim 2, Downey discloses the actuating slider (48) has a locking projection (at 68) formed with the locking surface (68) and projecting radially to the outer surface of the sleeve part.

Referring to claim 3, Downey discloses the locking projection (at 68) radially tapers toward the sleeve part and has a frustopyramidal cross section whereby the roof surfaces of the locking projection forms the locking surface (68) and the latter is inclined thereto in both opposite axial directions side flanks forming slide guide surfaces for the locking body (44).

Referring to claim 5, Downey discloses the actuating slider (48) forms a component at least partly surrounding the sleeve part (34) as a collar.

Referring to claim 6, Downey discloses the actuating slider (48) forms an actuating sleeve which surrounds the sleeve part (34) over its entire periphery.

Referring to claim 15, Downey discloses the end of the pipe insertion end which is proximal to the side surface of the cup-shaped detente recess (26) forms the second control surface.

Referring to claim 16, Downey discloses the cross sectional contour of the detente body (44) corresponds to the cross sectional contour of the cup-shaped detente recess (26).

Referring to claim 17, Downey discloses the detente body (44) forms a locking counter surface juxtaposed with the locking surface of the actuating slider (48).

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7. Claims 1, 7-8, 10-11 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha ('492).

Ha discloses (see Fig.2) plug-connectable vacuum cleaner pipe arrangement with a sleeve part (4) which forms a socket into which a pipe insertion end (2) can be axially inserted in an insertion direction and which can be held in a snap-locked condition releasably via locking means (7,5') which on the side of the sleeve part is comprised of a locking body (7) movable on the latter and on the side of the pipe insertion end is formed by a detent recess (5') provided in the latter and in which the detent body releasably engages, characterized in that, on the sleeve part an actuating slider (6) is axially guided which has a locking surface and is displaceable in two axially opposite axial directions starting from a neutral axial position of its locking surface against respective spring-restoring forces, in that the locking surface hold the locking body in its locked position in the neutral axial position of the locking surface and by each shift out of the neutral axial position into an unlocking position is displaced into an unlocking position, in that the end of the tube insertion end has a first control surface which upon insertion arrow of the tube insertion end into the socket moves the locking body together the sleeve part relative to the locking surface in the pipe insertion direction, thereby unlocking the locking body and freeing it for its releasable snap locking into the detent recess which is juxtaposed with a second control surface which, upon withdrawal of the tube insertion end from the socket moves the locking body together with the sleeve part relative to the locking surface in the withdrawal direction and thereby disengages.

Referring to claim 7, Ha discloses (see Fig. 3) sleeve part (4) and pipe insertion end (2) in the region of the socket have axial guide means (4a and 2a).

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Referring to claim 8, Ha discloses the axial guide means (4a and 2a) are formed from a groove and spline agent.

Referring to claim 10, Ha (see Fig. 3) actuating slider (6) and sleeve part (4) form axial guide means with one another (beneath element 4a).

Referring to claim 11, Ha discloses the axial guide means are formed from a groove and spline agent (see Fig. 3, below element 4A).

Referring to claim 18, Ha discloses the detent body (7) forms slide guide counter surfaces corresponding to the inclined slide guide surfaces (see Fig. 2) of the locking projection (9) of the actuating slider inclined in the two mutually opposite axial directions.

8. Claims 1 and 13-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim ('962).

Lim discloses (see Figs.5-6) plug-connectable vacuum cleaner pipe arrangement with a sleeve part (34) which forms a socket into which a pipe insertion end (221) can be axially inserted in an insertion direction and which can be held in a snap-locked condition releasably via locking means (360,229) which on the side of the sleeve part is comprised of a locking body (360) movable on the latter and on the side of the pipe insertion end is formed by a detent recess (229) provided in the latter and in which the detent body releasably engages, characterized in that, on the sleeve part an actuating slider (300) is axially guided which has a locking surface and is displaceable in two axially opposite axial directions starting from a neutral axial position of its locking surface against respective spring-restoring forces, in that the locking surface hold the locking body in its locked position in the neutral axial position of the locking surface and by



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each shift out of the neutral axial position into an unlocking position is displaced into an unlocking position, in that the end of the tube insertion end has a first control surface which upon insertion arrow of the tube insertion end into the socket moves the locking body together the sleeve part relative to the locking surface in the pipe insertion direction, thereby unlocking the locking body and freeing it for its releasable snap locking into the detent recess which is juxtaposed with a second control surface which, upon withdrawal of the tube insertion end from the socket moves the locking body together with the sleeve part relative to the locking surface in the withdrawal direction and thereby disengages.

Referring to claim 13, Lim discloses the detente recess (229) of the pipe insertion end is formed at a radially inwardly projecting cup-shaped recess circuited toward the pipe center.

Referring to claim 14, Lim discloses the cup shaped recess (229) has a generally frustoconically shaped cross sectional contour.

9. Claims 1,12 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaita (350).

Gaita discloses (see Figs. 1-3) plug-connectable vacuum cleaner pipe arrangement with a sleeve part (9) which forms a socket into which a pipe insertion end (25) can be axially inserted in an insertion direction and which can be held in a snap-locked condition releasably via locking means (at 19) which on the side of the sleeve part is comprised of a locking body (19) movable on the latter and on the side of the pipe insertion end is formed by a detent recess (below element 19) provided in the latter and in which the detent body releasably engages, characterized in that, on the sleeve part an actuating slider (23) is axially guided which has a locking surface and is

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displaceable in two axially opposite axial directions starting from a neutral axial position of its locking surface against respective spring-restoring forces, in that the locking surface hold the locking body in its locked position in the neutral axial position of the locking surface and by each shift out of the neutral axial position into an unlocking position is displaced into an unlocking position, in that the end of the tube insertion end has a first control surface which upon insertion arrow of the tube insertion end into the socket moves the locking body together the sleeve part relative to the locking surface in the pipe insertion direction, thereby unlocking the locking body and freeing it for its releasable snap locking into the detent recess which is juxtaposed with a second control surface which, upon withdrawal of the tube insertion end from the socket moves the locking body together with the sleeve part relative to the locking surface in the withdrawal direction and thereby disengages.

Referring to claim 12, Gaita discloses the end of the pipe insertion end (25) to form the first control surface is conically inwardly convergent over at least part of its periphery.

Referring to claim 19, Gaita discloses the detent body (19) is guided substantially radially movable on the sleeve part (9) and is coupled for movement (at 17) with the latter at least with respect to the two mutually opposite axial directions.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha '(492).

Ha discloses the pipe according to claim 7 but does not disclose the pipe insertion end having axial guide rib and the sleeve part having an axial guide groove. However, Ha does disclose the sleeve part having an axial guide rib (4A) and the pipe insertion end having an axial guide groove (2A) and the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Ha to have the guide rib on the pipe insertion end and the groove on the sleeve part because the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art.

*Allowable Subject Matter*

12. Claims 4 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: It would not be obvious to modify prior art of record to have a radially inwardly project claw like formation that receives a rod spring held on the sleeve part or for the detent body to be formed of a tongue like component cut out of the sleeve part with a actuating slider that can disengage the detent body in pipe insertion direction and the pipe withdrawal direction.

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*Conclusion*


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. German Patent DE 19706210 to Froh discloses plug connectable vacuum cleaner pipe arrangement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

gmc  
July 10, 2003

  
**ERIC K. NICHOLSON**  
**PRIMARY EXAMINER**